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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,671	01/06/2002	Michio Tanimoto	00109	2909

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EXAMINER

NECKEL, ALEXA DOROSHENK

ART UNIT PAPER NUMBER

1764

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/040,671

Applicant(s)

TANIMOTO ET AL.

Examiner

Alexa D. Neckel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-33 is/are pending in the application.
- 4a) Of the above claim(s) 16-33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Newly submitted claims 16-33 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The originally filed and examined claims are directed toward an apparatus and newly submitted claims 16-33 are directed toward a process. The apparatus as claimed can be used to practice another and materially different process.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 16-33 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 8-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Tazaki et al. (5,264,627).

With respects 8-11 and 14, the patentability of a product-by-process claim is based on the product itself (in the case, the tube reactor) and does not depend on its method of production. MPEP 2113. Therefore the apparatus of Tazaki et al. reads directly on the apparatus of the instant claims which comprise a fixed-bed shell and tube reactor with solid particulate material in each reaction tube (col. 2, lines 57-68) uniformly packed so that the length of the packed layers are in the range of 90 to 110% of the average length of the layers (col. 5, lines 45-57 and col. 8, lines 54-59). As such, it is held that the pressure drop of the tubes would inherently each be in the range of 85 to 115% of the average pressure drop.

With respect to claim 12, Tazaki et al. discloses wherein the tube diameter is in the range of 15-50 mm (col. 8, lines 54-59).

With respect to claim 13, Matsumoto et al. discloses wherein the ratio of the diameter of solid particulate material (table 1) and the tube diameter (col. 8, lines 54-59) is in the range of 0.1/1 to 0.5/1.

With respect to claim 15, Matsumoto et al. discloses wherein the catalyst comprises molybdenum and phosphorus (col. 4, lines 65-66) or molybdenum, bismuth and iron (col. 4, lines 58-59).

4. Claims 8-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Matsumoto et al. (6,808,689).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

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either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

With respects 8-11 and 14, the patentability of a product-by-process claim is based on the product itself (in the case, the tube reactor) and does not depend on its method of production. MPEP 2113. Therefore the apparatus of Matsumoto et al. reads directly on the apparatus of the instant claims which comprise a fixed-bed shell and tube reactor (201) with solid particulate material (205) in each reaction tube (204) uniformly packed (col. 19, lines 34-38) and it can be seen in figure 2 that the length of the packed layers are in the range of 90 to 110% of the average length of the layers. As such, it is held that the pressure drop of the tubes would inherently each be in the range of 85 to 115% of the average pressure drop.

With respect to claim 12, Matsumoto et al. discloses wherein the tube diameter is in the range of 15-50 mm (col. 5, lines 50-53).

With respect to claim 13, Matsumoto et al. discloses wherein the ratio of the diameter of solid particulate material (col. 24, lines 10-11, 30-31, 42-45, 56-60 and col. 25, lines 12-14) and the tube diameter (col. 5, lines 50-53 and table 1) is in the range of 0.1/1 to 0.5/1.

With respect to claim 15, Matsumoto et al. discloses wherein the catalyst comprises molybdenum and phosphorus (col. 23, lines 29-39).

Response to Arguments

35 USC 112 and 35 USC 101 Rejections

The rejections of claim 7 under 35 USC 112 and 35 USC 101 no longer apply as the claim has been cancelled by applicant.

35 USC 102

Applicant argues that the pressure drops of in the tubes of both Tazaki and Matsumoto would not inherently be in the range of 85-115%. Applicant presents information wherein tubes packed at different packing times, having different lengths of packing material within, could have pressure drops outside of the claimed range.

The examiner does not find the information presented by applicant, in order to refute the inherency argument, as being persuasive.

With regard to Tazaki, there is no discussion of the packed tubes being anything but uniform and equivalent to each other. As such, all lengths would be substantially equal therefore all having substantially equivalent pressure drops.

With regard to Matsumoto, there is no discussion of the packed tubes being anything but uniform and equivalent to each other. Rather, the packings are uniform (col. 19, lines 34-38) and it can be seen in the figures that the lengths are all substantially equivalent. As such, all lengths being substantially equivalent would all have substantially equivalent pressure drops.

The examiner does not find applicant's arguments and tables as providing sufficient information to dispute the examiner's holding of inherency. The cause and

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effect sought to be proven here is lost here in the wealth of unfixed variables. *In re Heyna*, 360 F.2d 222, 228, 14a USPQ 692, 697 (CCPA 1966).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alexa D. Neckel
Primary Examiner
Art Unit 1764

February 1, 2006



ALEXA DOROSHENK NECKEL
PRIMARY EXAMINER